

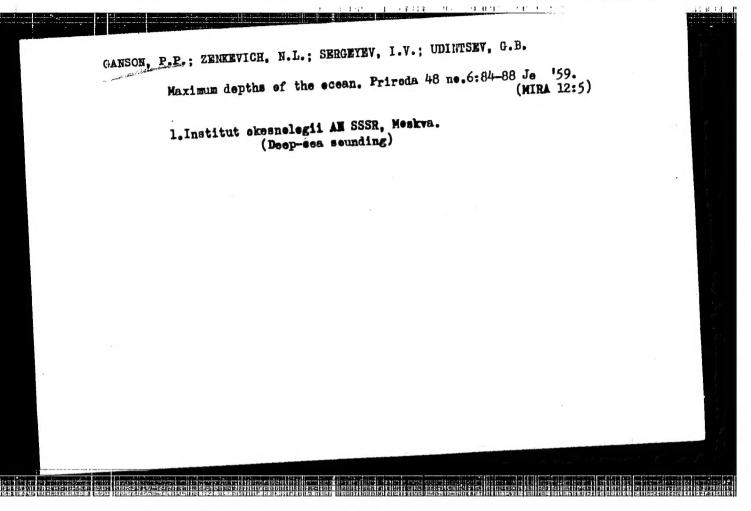
MARGULIS, L.I.; GANSKIY, V.A.; GOBERMAN, M.D., otv.red.; PEVZNER, A.S., zav.red.izd-va; OSENKO, L.M., tekhn.red.

[Uniform time and pay standards for construction, assembly, and repair operations in 1960] Edinye normy i rastsenki na stroitel'nye, montazhnye i remontno-stroitel'nye raboty, 1960 g.

Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam. Sbornik 33. [Assembling the equipment for metallurgical plants] Montazh metallurgicheskogo oborudovania. No.1. [Equipment for blast-furnace plants] Oborudovanie domennykh tsekhov. 1960.

63 p. (MIRA 13:6)

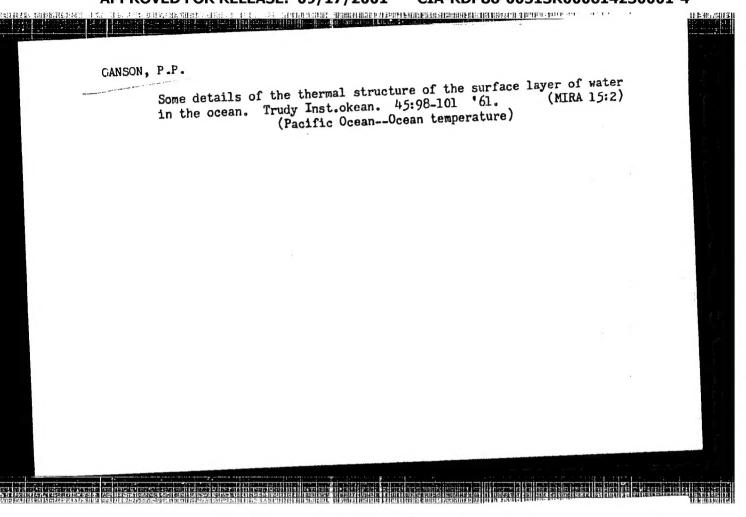
1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva. 2. TSentral'noye normativno-issledovatel'skoye byuro Ministerstva stroitel'stva RSFSR (for Margulis, Ganskiy). (Wages) (Blast furnaces)



BARK, L.S.; GANSON, P.P.; MEYSTER, N.A.; DOBROVOL'SKIY, A.D., prof., otv.red.; KORKINA, A.I., tekhn.red.

[Tables of the speed of sound in sea water] Tablitsy skorosti
[Tables of the speed of Moskva, Vychislitel'nyi tsentr AN SSSR, zvuka v morskoi vode. Moskva, Vychislitel'nyi tsentr AN SSSR, (MIRA 1416)

1961. 180 p. (Sound-Speed)



S/213/62/002/001/002/002

AUTOR: Ganson, P. P.

TITLE: Sea acoustics — a new branch of oceanology

PERIODICAL: Okeanologiya, v. 2, no. 1, 1962, 151–153

TEXT: Sea acoustics, the science of submarine sounds, is a powerful tool in the age of the atomic submarine and underwater missile launching. Proper application of the science depends on very accurate determination of the speed of sound and the acoustic properties of water. These properties should be determined on a regional basis by the integration of all available data and particularly the vertical distribution of salinity and temperature, structure and morphology of theo cean floor, and the distribution of plankton.

Card 1/1

50-58-4-11/26 AUTHOR: Ganson, P. P. On the Computation Formulae of the Propagation Velocity of TITLE: Sound in Sea Water (O formulakh dlya rascheta skorosti rasprostraneniya zvuka v morskoy vode) Meteorologiya i Gidrologiya, 1958, Nr 4, pp 30-34 (USSR) PERIODICAL: The exact knowledge of the sound velocity in sea water is ABSTRACT: of importance for the solution of practical problems in case of application of hydro-acoustic devices. The velocity is ascertained by 2 ways: 1) Directly measured by apparatus and 2) computed by means of formulae, which express the dependence on temperature, salt content, and hydrostatic pressure. The advantages and disadvantages of these two methods are discussed. Also in case of presence of an apparatus the formula must be used for the computation: (1), whereby & denotes the relation of the specific heat capacities of the sen water, p - the average density, and β - the coefficient of the isothermal compressibility of the sea water. According to this formula tables (references 1,2,5,6,8,10) are computed. Out of the Card 1/3

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614230001-4"

On the Computation Formulae of the Propagation Velocity of 50-58-4-11/26 Sound in Sea Water

latest works on direct measurements (references 4, 11) can be seen that the velocities, computed on the basis of tables and nomograms, which base upon a theoretical formula, are in the average by 3-4 m/sec. lower than the effective values. The coefficient β was taken too high. There are some more empirical formulae (references 4,7,9,12). In the following the various formulae are compared with each other. Though the results of the latter differ from each other, the question of the choice of a formula, which gives the most accurate results, cannot be solved. The author used 80 directly measured velocities as specimens (Etalon), for which simultaneous measurements of temperature and salt content were present. Of this data curves of the measured and of the after various formulae computed sound velocity were constructed (figure 1). From the comparison the accuracy of each formula could be estimated. From this comparison the author deduces the following conclusions: 1) To be able to compute the sound velocity by the theoretical formula (1) the coefficient β must be determined by means of laboratory experiments. 2) All here discussed empirical formulae do not guarantee the accuracy which at present is required.

Card 2/3

On the Computation Formulae of the Propagation Velocity of 50-58-4-11/26 Sound in Sea Water

3) For the determination of the sound velocity from the the temperature and the salt content of sea water the nomogram or the tables by Del'Grosso (reference 4) have to be applied. 4) In his formula the coefficients in the 2nd and 3rd term are to be modified (being given in this new form). 5) Because of the troublesomeness of the computation by formulae a special computation device should be constructed.

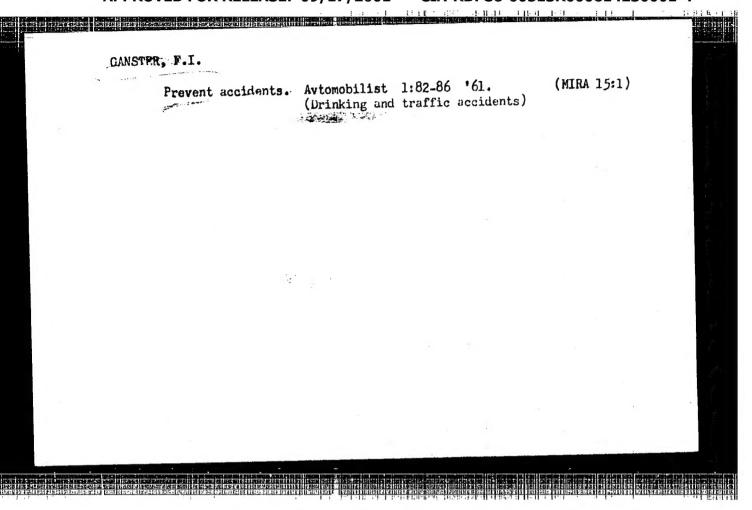
There are 3 figures, 1 table, and 12 references, 2 of which are Soviet.

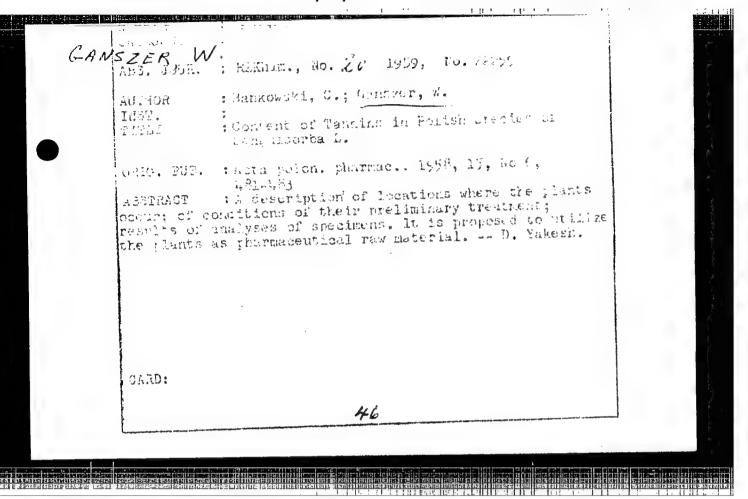
AVAILABLE:

Library of Congress

Underwater sound - Propagation 2. Underwater sound - Velocity 3. Mathematics - Applications

Card 3/3





GANSZER, W., SZTAJEROWA, M.

; :

Severe acute uremia with convulsions following allergy to sulfonamides. Polski tygod, lek. 5:8, 20 Feb. 50. p. 284-90

1. Of the Surgical Department of the Hospital imienia Practyslaw 11. in Kalisz. (Director of the Hospital-Karol Piotrowski, H. D.; Head of the Surgical Department-10dz. Gansser, H. D.; Head of Children's Department-1. Fiszer, H. D.).

CLML 19, 5, Nov., 1950

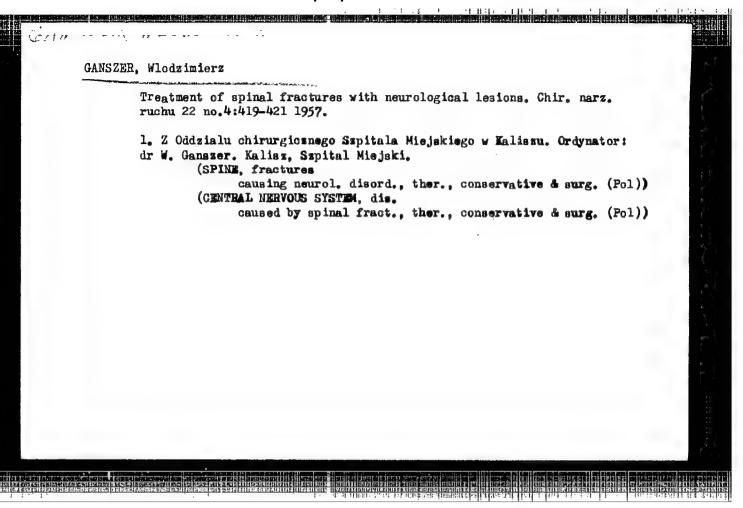
THE THE STATE OF

1. Of the Surgical Department (Head-Wi. Gansser, M. D.) of Hospital imignia Przemyslaw II (Director -- Karol Piotrowski, M. D.) in Kaliss.

GAMSZER, W.; GIADYSZ, B.

Observations on application of contrast media in cases of so-called hemorrhagic cysts in the supracravicular region. Polski przegl. radiol. 17 no.1:37-46 Jan-Mar 1953. (CIML 24:5)

1. Of the Hospital imienia Przemyslaw II in Kalisz.



CANSTER, et.

POLAND/Morphology of Man and Animals (Normal and Pathologic).

S-2

Digestive System.

Abs Jour

Ref Zhur - Biol., No 4, 1958, 17024

Author

Ganszer, W.

Inst Title : -

A Case of Rectum Duplex.

Orig Pub

: Polski przegl, chirurg., 1957, 29, No 5, 495-498

Abstract

: No abstract.

Card 1/1

GANSZER, Wlodzimierz

Extensive diverticulosis of the jejunum complicated by primary cancer of one of diverticula, Polski przegl. chir. 29 no.7:705-707 July 57.

1. Z oddziału Chirupgicznego Szpitała Miejskego w Ealiszu. Ordynator: dr. W. Ganszer.

(JEJUNUM, diverticula, extensive with primary cancer of one diverticulum (Pol))

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POLAND

GANSZEG, Wlodzimierz, Dr. med., Ordynator of the Surgical Division (Oudzial Chirurgicany) of the Municipal Hospital (Szpital Miejski) in Kalisz (Director: Dr. med. L. NOWACKI)

"Post-traumatic Liver Cyst. Case Report."

Warsaw, Polski Tygodnik Lekarski, Vol 18, No 2, 7 Jan 63, pp 52-64,

Abstract: [Anthor's English summary modified] Symptoms, diagnostic procedure, and successful freetaent of a rare complication connected with an injury to the liver following trauma is described. There are two (2) English references.

1/1

2

POLAND

It seem

GANSZER, Wladzimiarz, Or. med., "Ordynator" of the First Surgical Division (Oddział Chirurgiczny I), Municipal Hospital (Szpital Miejski) in Kalisz.

"Arterious-Venous Fistula on the Face. Casa Report."

warsaw, Polski Tygodnik Lakarski, Vol 18, No 3, 14 Jan 63, pp 109-110

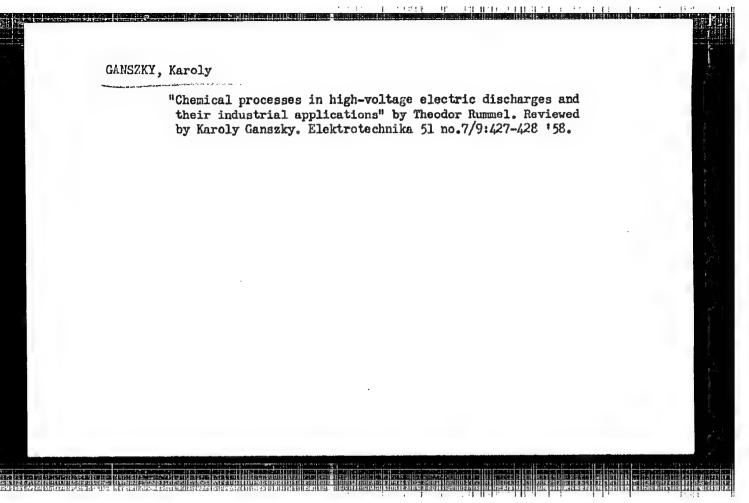
Abstract: [Author's English summary] A case of acquired arterious-venous fistula localized on the head (frontal vessels) is reported. Surgical treatment (excision) was successful. There are 7 references, of which 6 are Polish and one English.

1.1/1

GANSZER, Wlodzimierz, dr.

Fracture of the carpal scaphoid bone. Chir. narzad. ruchu ortop. Pol. 28 no.7:991-994 163

1. Z Oddzialu Chirurgicznego Szpitala Miejskiego w Kaliszu (Ordynator: dr. W. Ganszer).



GANSZKY, Karoly, okleveles villamosmernok, adjunktus

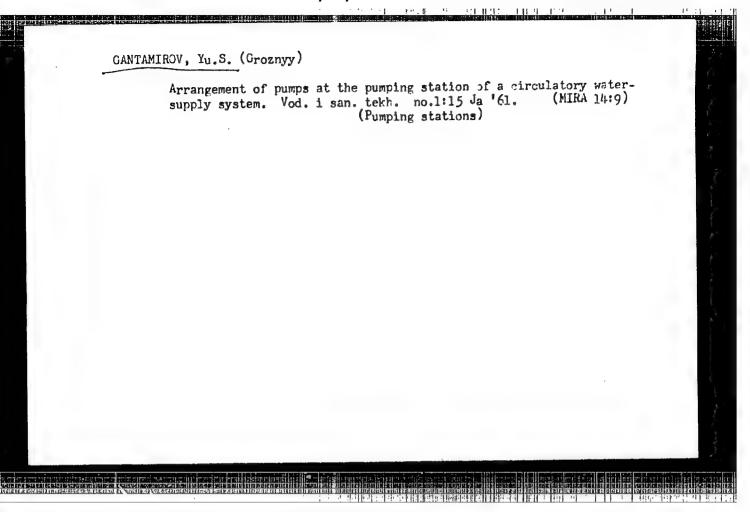
External characteristic curves of six-phase rectifiers during the passive operation of the suction-choke coil. Elektrotechnika 57 no.7:269-279 Jl '64.

1. Chief, Division of Industrial Electronics, Electric Power Industry Research Institute, Budapest, and Chair of Automation, Budapest Technical University, Budapest, V., Jozsef Attila u.24.

GANSZKY, Karoly, okleveles villamosmernok, adjunktus Current conducting conditions of the six-phase rectifier circuit with interphase transformer during the active

operation of the transformer. Elektrotechnika 57 no.11/12: 537-547 N-D '64.

1. Scientific Division Chief, Research Institute of Electric Industry, and Chair of Automation, Budapest Technical University.



GANTAMIROV, Yu.S., inzh. (g. Groznyy)

From the experience of designing the return water-supply systems of process installations of petroleum refineries. Vod. i san. tekh. no.10:21-22 0 '65. (MIRA 18:11)

The Arnes Hollow. p. 11,9; Slovenska akademija znanosti in umetnosti.
Institut za raziskovanje krasa. POROCILA. ACTA CARSOLOGICA. Ljubljana;
Vol. 1, 1955

SOURCE: East European Accessions List (EEAL), Library of Congress,
Vol. 5, No. 12, December 1956.

CZECHOSLOVAKIA

GANTCHEV, G.; KOITCHEVA, V.; Affiliation not given 7.

"Functional State and Regulation Mechanisms of the Motor Analyzer in Postural Activity of Man."

Prague, Activitas Nervosa Superior, Vol 8, No 2, Jun 66, pp 160-165

Abstract /Authors' English summary modified 7: Hand tremor components differing in frequency and amplitude are described. Frequency of medium amplitude oscillations was 1.2 to 2.2 cycles, at low oscillations 2.5 cycles. Visual feedback in the maintaining of a definite position has the character of negative feed-back as a stabilizing process. Low frequency components of the tremor are of supraspinal origin. Effect of the tremorogram of the functional changes in the peripheral muscular reception shows that high-frequency components are associated with the spinal regulation mechanism of postural activity. In the state of fatigue a delay in the nerve impulses occurs probably in the synapses. Postural activity was studied in relatively simple interrelations of the center and the poriphery because, as proved by electromyography, the extensors play the main part in maintaining posture. 6 Figures, 1 Table, 4 Western, 5 Russian, 2 East German references. Article is in French.

frequency: 1.2-2.2 c/sec); and 3) very weak, night frequency coefficients (~2.4 c/sec). An extended discussion searches for the mechanism(s) explaining the observed oscillations. There are 2 Bulgarian, 1 Soviet, and 2 Western references. (Manuscript received, 17 Jan 66.)

Country : Hungary D
Cosmochemistry : Geochemistry : Hydrochemistry :

Abs. Jour.: Ref Zhur-Khimiya, No 6, 1959 18957

Author : Ganti, T. Institut.

Titl: : Pisolites and Pisolitelike Formations.

Crig Fib. : Acta mineral.-petrogr. Szeged., 1957, 10,

15-18

Abstract: Four instances of formation of pisolites are considered: 1) uniform grains of sand covered with water, on rolling in a moving current, are deposited in a form similar to peas; 2) well developed crystals of calcite become coated with a layer of calcite, by crystallization; 3) formation of pisolites takes place in cold water, when the previously separated particles become coated, on condensation, with a thin, stable layer of calcite; 4) aragonite, which separates out from the water during a slow flow of the stream, is converted to the stabler calcite of greater specific gravity. In the course thereof the coating layer of calcite becomes a blistered pisolite-like formation which

Card: 2/2

Description of the language of the

GULTI T

HUNGARY/Cosmochemistry, Geochemistry, Hydrochemistry.

D.

Abs Jour

: Ref Zhur - Khimiya, No 12, 1958, 39261

Author

Ganti, T

Inst

: Ganta, /

Title

: Chemical Conditions for the Formation of Cavities.

Orig Pub

: Hidrol. Kozlony, 1957, 37, No 3, 285-288

Abstract

: The formation of cavities in limestones cannot be completely explained by the theory of dissolving and water
erosion. For, otherwise, they should be also present
in dolomites and this is not often the case. However,
it is noted that the ratio of calcium to magnesium,
which for the common waters is equal to one to one, is
sharply changed to 100 to one for the cavities waters.
This cannot be explained only by the theory of the secondary solution according to which only calcium carbonate is precipitated from the cavities waters, and
the magnesium remains in solution. By saturating and

Card 1/2

HUNGARY/Cosmochemistry, Geochemistry, Hydrochemistry.

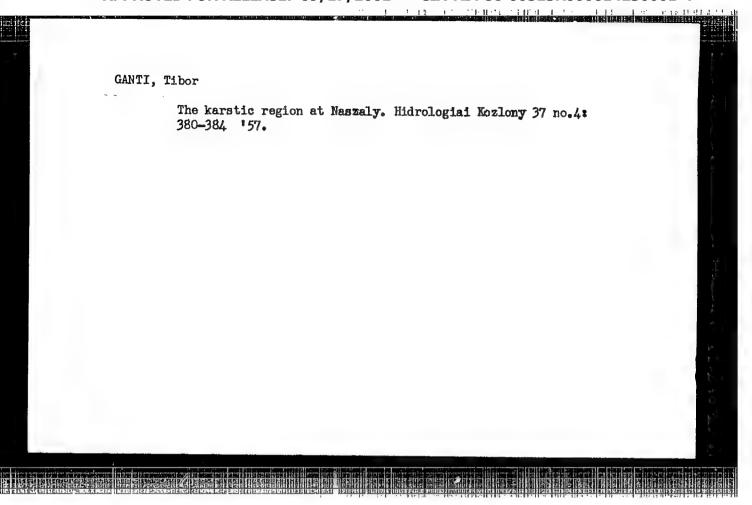
D.

Abs Jour

: Ref Zhur - Khimiya, No 12, 1958, 39261

supersaturating those waters, calcium carbonate can be precipitated, and the limestone dissolved simultaneous. ly. The volume of the dissolved rocks, calculated on the magnesium content in water is considerably larger than that calculated on the carbonate content. Thus, the effect of the secondary dissolving in considerably higher than that of the primary one. The cavities might be formed only when a secondary dissolving is possible. In dolomites, the dissolving does not occur due to particular conditions of crystallization.

Card 2/2



HUNG.RY/Physics of Solid Bodies - Structural Crystallography

E-4

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 5619

Author : Ganti Tibor

Inst :-

Title : Plastic Capillaries for X-ray Diffraction Investigations

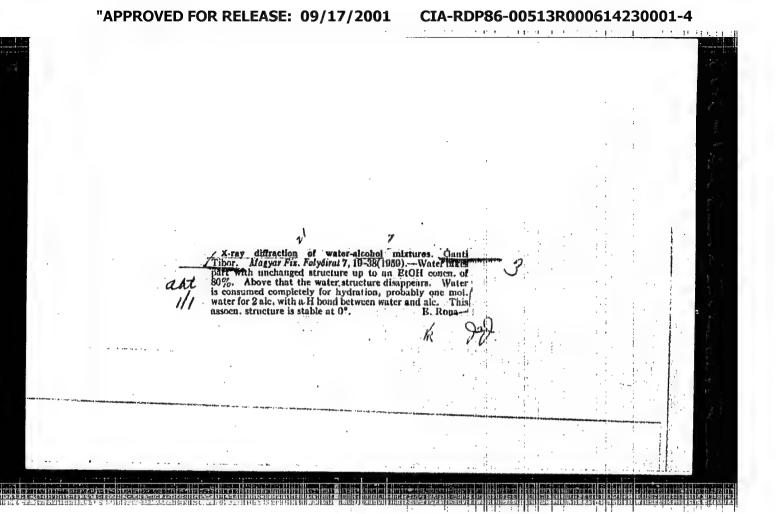
Orig Pub: Magyar fiz. folyoirat, 1958, 6, No 1, 43-46

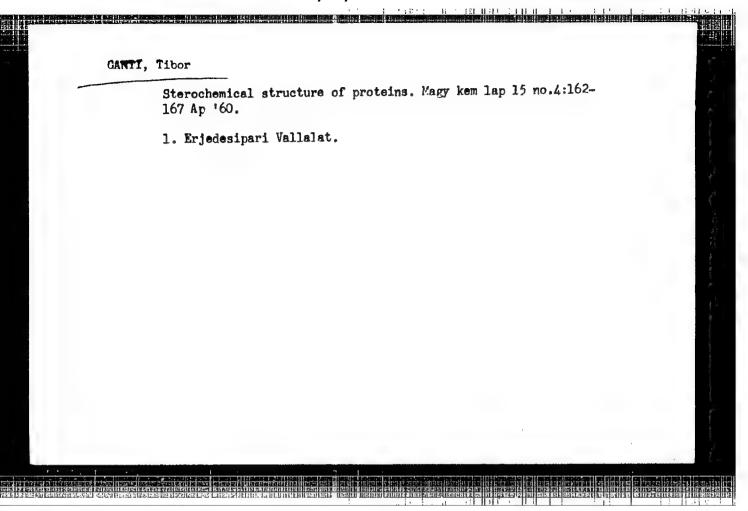
Abstract: Description of the application of polyvinyl acetate capillaries

for powdered specimens (diameter of the capillary is 0.28 mm, thickness of the wall is 0.02 mm) in the taking of

Debyegrams.

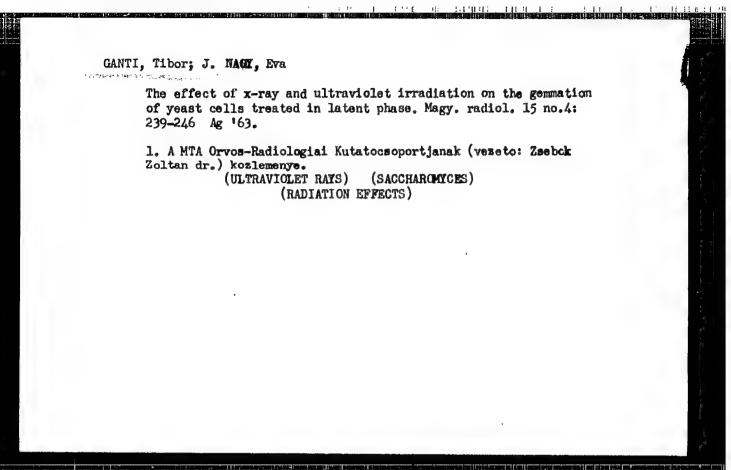
Card : 1/1





General paper chromatographic developing process. Magy kem folyoir 68 no.7:293-296 Jl '62.

1. Budapesti Elesztogyar (for Ganti). 2. Orszagos Kozegeszsegugyi Intezet, Budapest (for Novak).



Viruses and bacteriophages and their role in the food industry.
Elelm ipar 17 no.12:377-382 D '63.

1. Budapesti Elesztogyar.

FODOR, Jozsef: GANTI, Tibor

Reaction kinetic investigation of the decomposition of diphosphopiridine-nucleotide. Magy kem folyoir 69 no.2:63-66 F '63.

1. Budapesti Elesztogyar, Budapesti.

18782-63

EWT(1)/EWT(m)/BDS/ES(j)

AMD/ASD/AFFTC AR/K

ACCESSION NR: AP3005989

H/0021/63/000/004/0239/0246

AUTHOR:

Genti, Tibor; Nagy, Eva J.

TITLE: Effect of X- and ultraviolet radiation on the gemmation of yeast cells treated in the latent phase

SOURCE: Magyar radiologia, no. 4, 1963, 239-246

TOPIC TAGS: gemmation, yeast cell., Saccharomyces cerevisiae, synchronism, lag phase, ultraviolet irradiation, X-irradiation, cellular radiation resistance

ABSTRACT: The authors investigated the changes brought about in the first gemmation of Saccharomyces cerevisiae by UV- and X-irradiation. It was found that UV decreases the degree of synchronism and the number of cells capable of gemmation; however, when the irradiation is carried out during the late part of the "leg" phase, this inhibition is not yet observable at the beginning of gemmation. The cause of this phenomenon may be the increased resistance of the cells to radiation immediately prior to gemmation, or that the UV effect requires a certain length of time to develop. In the case of X-irradiation gemmation set in about 10 minutes later than in the case of unirradiated cells when

Card 1/2

L 18782-63 ACCESSION NR: AP3005989 the irradiation was carried out during the early period of the "lag" phase; when the irradiation was effected immediately prior to the start of genmation, the delaying effect was observable only after a certain time. Orig. art. has: 8 figures. ASSOCIATION: MTA orvos-radiologiai kutatocsoport (MTA Medical-Radiological Research Group) SUBMITTED: 00 DATE ACQ: 27Aug63 ENCL: SUB CODE: AM NO REF SOV: 000 OTHER: 016

ACCESSION NR: AP4032719

H/0021/64/000/002/0110/0117

AUMOR: Ganti, Tibor (Doctor)

TIME: Use of synchronous cell-cultures in radiological examinations

SURCE: Magyar radiologia, no. 2, 1964, 110-117

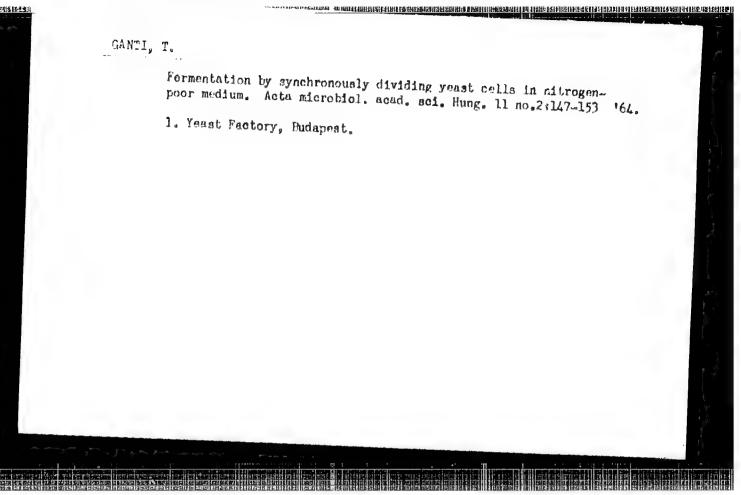
TOFIC TAGS: radiology, radiation sensitivity, cell irradiation, cell culture, synchronous culture, cell multiplication, mitosis, morphological analysis, cell morphology, biochemical analysis, cell chemistry

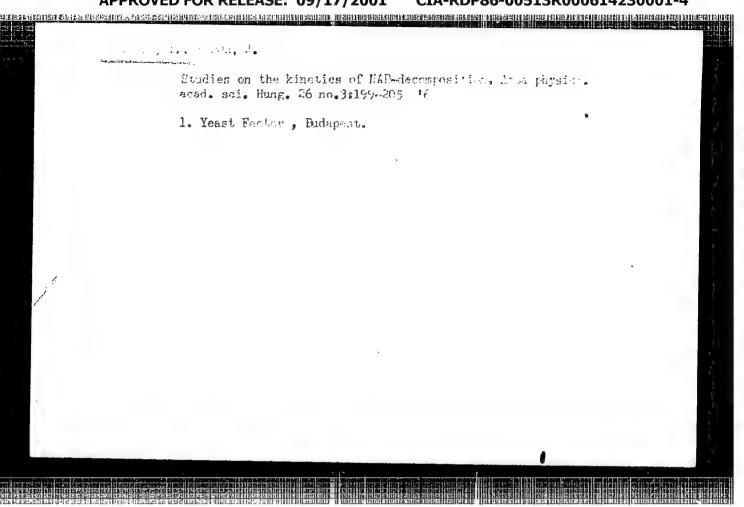
ABSTRACT: Cell-cultures in which the majority of the cells at any moment is in the same phase of the reproductive cycle (synchronous cultures), offer a possibility of examining the specific processes of cell-multiplication and their sensitivity fo radiation. A great number of physical and chemical methods has been worked out for the synchronization of cell-cultures. The effect of the radiation on the mitosis and the radiation sensitivity in its various stages may be examined in synchronous cultures by means of morphological and biochemical methods. Orig. art. has: 2 figures.

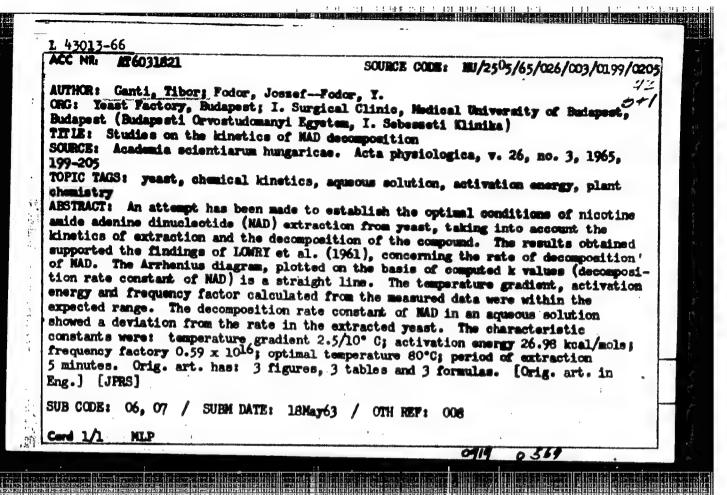
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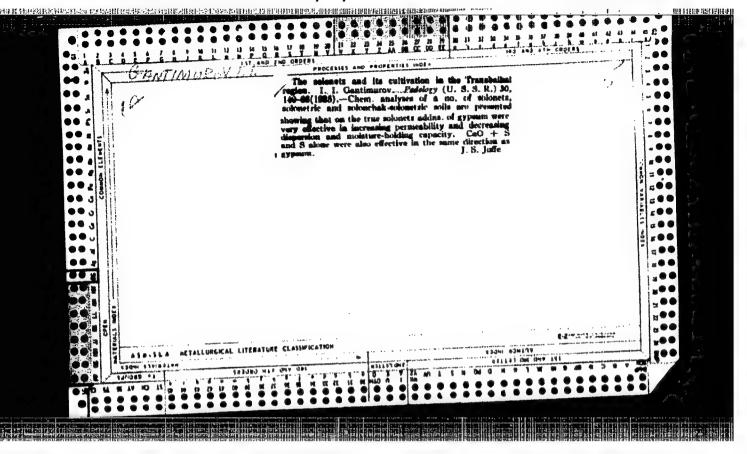
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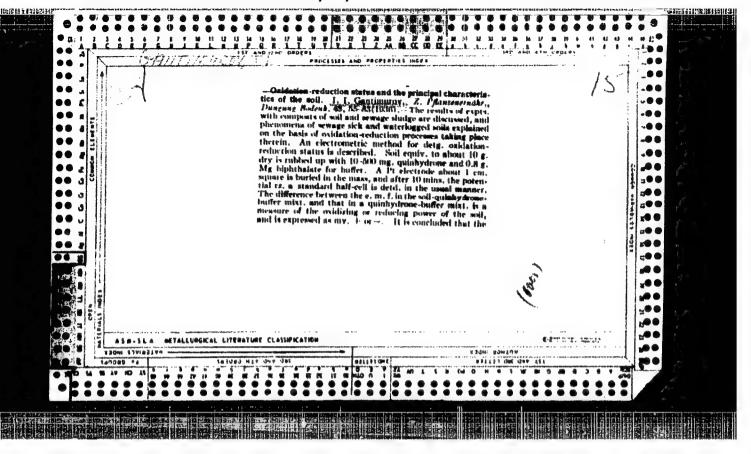
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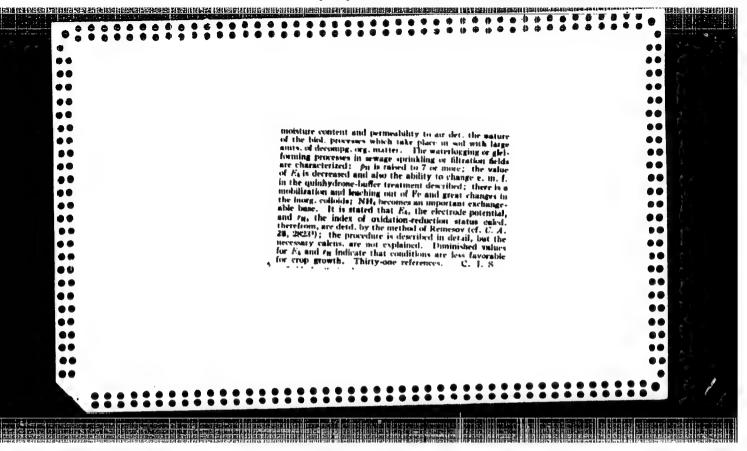


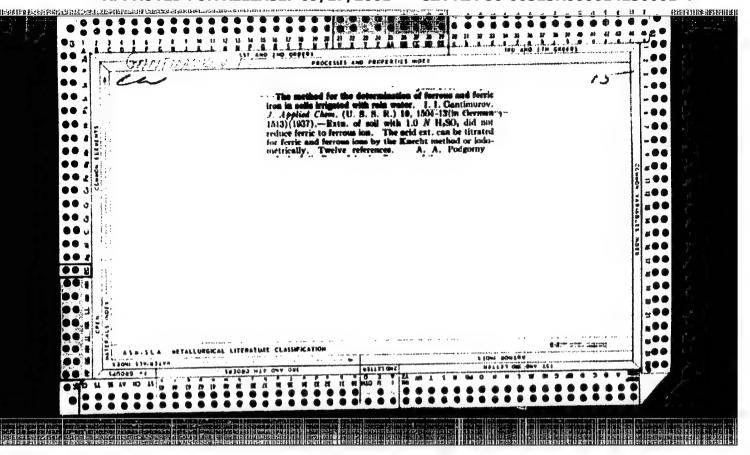


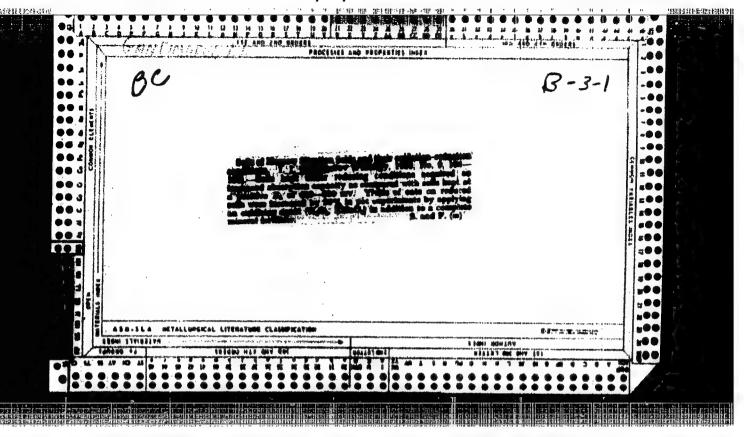


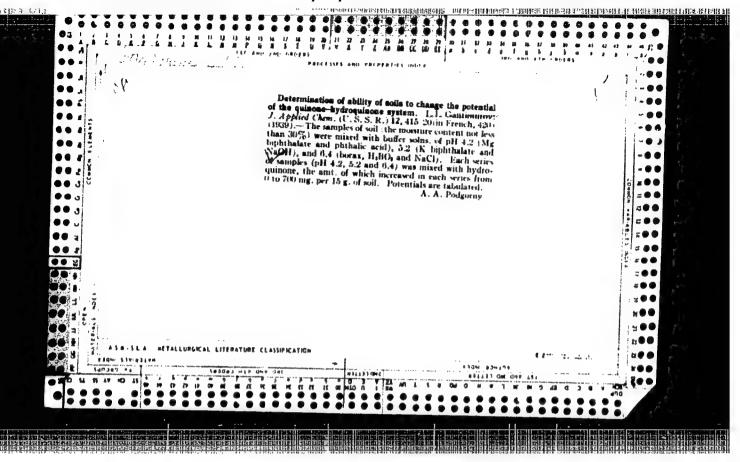




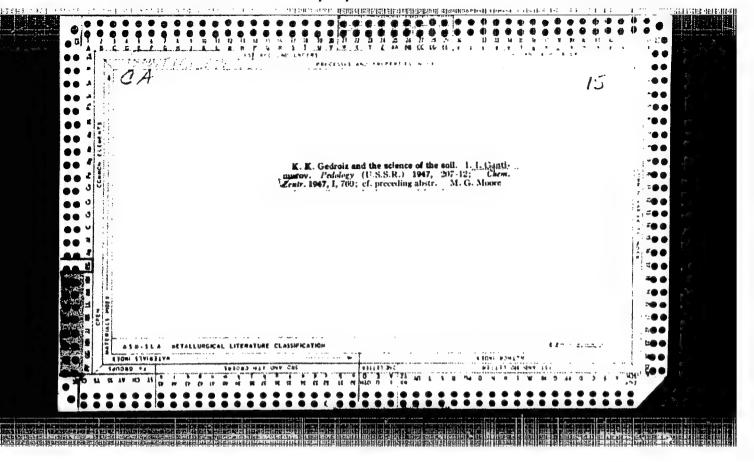








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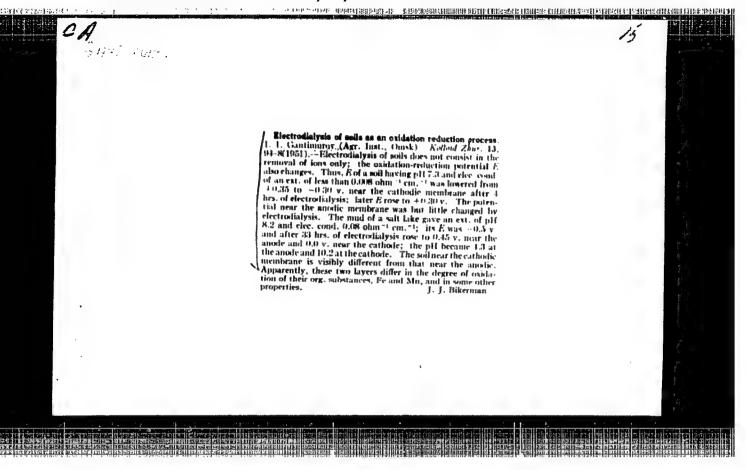


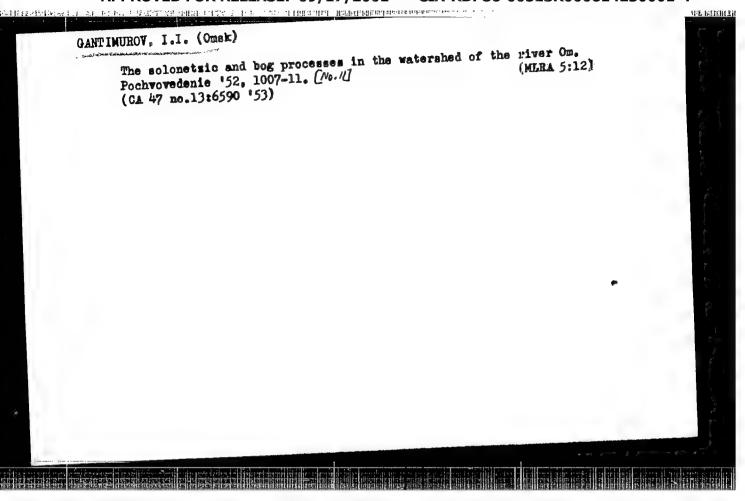
GANTIMUROV, I. I.

"Research on the Problems of Sanitary Soil Science." Sub 12 Jan 51, Moscow Order of Lenin State U imeni M. V. Lomorosov.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55





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CASE THE Science. Tillago. Improvement. Specien. J

A.A. Holl.: Rankind., No. 3 1959, No. 10727

SAUD: Santingroy, I. I... Koshkin, H. A.

Willingsaya Experiment and Soil Improvement Station

Measures for the Reclametion and Improvement of

Low-Fertility Lands in the Regions of Bernhon.

CRIC. FIS.: Syul. nauchne-isslad. i opyta. malfor. st., 1957, No. 2,

5-12

ARECUA: No abstract.

USSR / Soil Science. Cultivation. Melioration, Erosion. J

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95775.

Author : Gantimurov, I. I.

Inst : Ubinskoye Experiment Melioration Station.

Title : Results of an Experiment with Methods of Primary

Cultivation of Marshes.

Orig Pub: Byul. nauchno-issled. i opytn. rabot Ubinsk. opytn.

melior. st., 1957, No 2, 30-41.

Abstract: Results are described of experiments conducted

on a lowland sedge-reed weakly-saline marsh in the Ubinskoye Experimental-Improvement Station (Baraba) in 1955-1956. Primary cultivation was conducted at the end of the summer in 1955 without allowing the turned-up virgin soil to lie fallow. Various variants of cultivation were used (cutting, deep plowing in different combina-

Card 1/2

USSR / Soil Science. Cultivation. Melioration, Erosion. J

Abs Jour: Ref Zhur-Biol., No 21, 1958, 95775.

Abstract: tions). In the spring of the following year, the cultivated plots were rolled. During sowing of oats, 2 c per 1 ha of P_c and 1 c per 1 ha of N_{aa}

were applied. Data are cited of phenological observations for the development of the plants and harvest capacity of some soil-agrochemical indicators. The highest harvest with fertilizers and without fertilizers was obtained by plowing with a shrub-marsh plow plus disking plus cutting. -- F. N. Sofiyeva.

Card 2/2

USSR/Soil Science - Genesis and Geography of Soils.

J

Abs Jour

: Ref Zhur Diol., No 22, 1958, 99989

Author

: Gantimurov, I. I.

Inst

: Novosibirsk Agricultural Institute

Title

: Soil Conditions in the Dasic Wood Types of the Former

"Borovoye" National Forest Kazakh SSR

Orig Pub

: Tr. Novosib. s.-kh. in-t, 1957, 12, 92 pages, ill.

Abstract

: Under the pine trees of the "Borovoye" National Forest soils of the podzol type are being formed on granites, which are characterized by a coarse mechanical structure and by a comparatively small depth of the soil profile. The soil morphology and peculiarities of its distribution are examined in detail. A study of the soils' chemical properties indicated that the free Al predominative ways the statement of th

tes over the exchangeable H ion. The exchangeable

Card 1/2

USSR/Spil Science - Genesis and Geography of Spils.

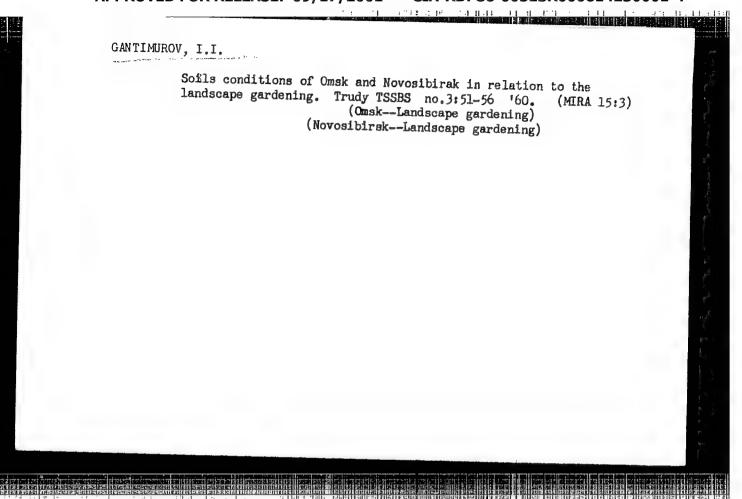
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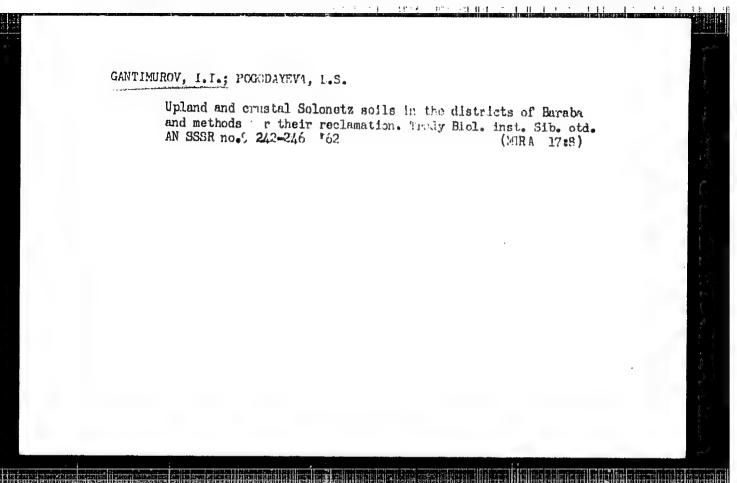
Abs Jour : Ref Zhur Biol., No 22, 1958, 99989

acidity of the lower horizons is caused only by the free Al and appears to be a characteristic of the subsoils conditioned by the weathering processes of soil-formation rocks - granite, quartz and mica. The character of forest-cultivating conditions and the special features of the soils' water regime are presented. -- P.V. Shramko

Card 2/2

_ 20 _





GANTIMUROV, I.I.; EASHIROVA, F.N.; TAMASOVA, N.V., rod.

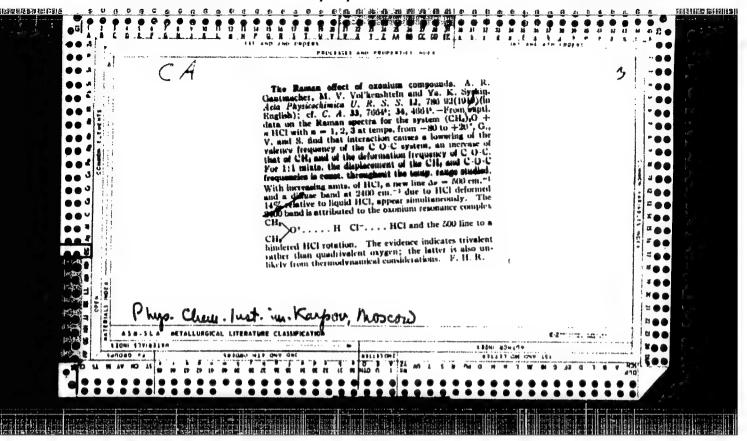
[Scientific bases for studying soil conditions in cities] Nauchnye osmovy izucheniia pochvennykh uslovii v gorodakh. Novosibirsk, Red.-1zd. otdel Sibirskego otd-niia AN SSSR, 1964. 135 p. (MIRA 18:1)

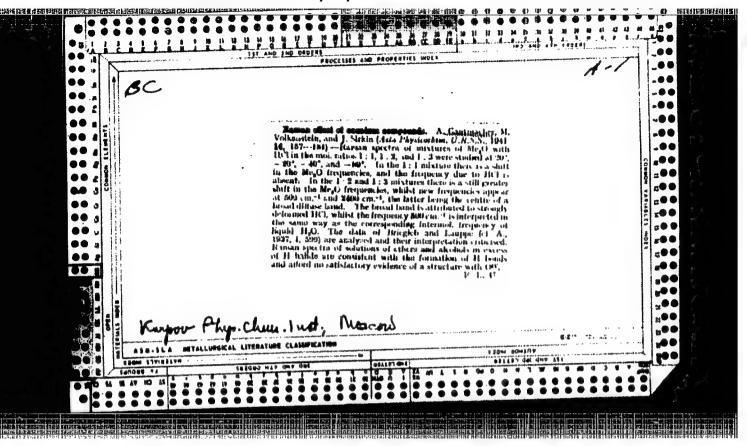
GANTIMUROV, P.G., inzh.; VISHNEVSKIY, N.I.; RYSIN, V.I., inzh.; BANDIN, M.W.

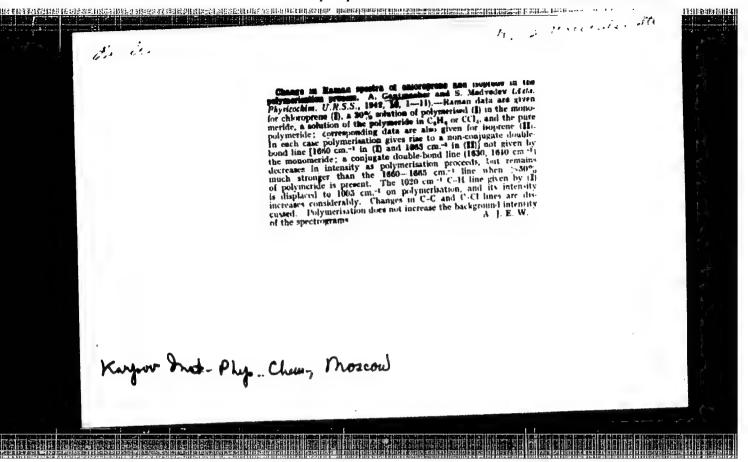
Exchange of practices by the enterprises of economic councils. Torf. prom. 39 no.5:29-33 '62. (MIRA 16:8)

- 1. Sverdlovskiy sovet narodnogo khozyaystva (for Gantimurov).
 2. Glavnyy energetik torfopredpriyatiya "Krasnoye znamya"
 Belorusskogc soveta narodnogo khozyaystva (for Vishnevskiy).
 3. Torfopredpriyatiye Radovitskiy Mokh Moskovskogo oblastnogo
- J. Torfopredprivative Radovitskiy Mokh Moskovskogo oblastnogo soveta narodnogo khozyaystva (for Rysin). 4. Leningradskiy gosudarstvennyy trest torfyanoy promyshlennosti (for Bandin).

GANTIMUXOVA M. B.-6 👍 🗀 ឯក Yarshoo CATURGRY : ABS. JOUR. : RZB101., No. /%, 1958, No. 8/119 : Just in prove, Me : Ubir/raya hand medicartion hapening a otation : Jenoit Lylty of John to the begree of wait AUTTOR INBT. TITLL ball batter ORIG. PUS. : Byul. numericaled. 1 opyth. rabet Ubirsk. opyth. melior. et., 1957, No. 2, 68-69.
ADSTRACT: At the station, unallyses were muse of soil could from different parts of a field planted with corn, the samples of ing collected from those parts where a difference in the condition of the plants was apparent. The analyses showed that yields of green drop of corn detend on ph of the boil and total distributy of the boil criticity by the boil of the b of low electric conductivity and alkalinity, but with a large content of sulfates; the lowest -- in a soil with clear indication of sulfation, where the ph was 3.60, the aqueous extract showed high electric conductivity, was low in sulfates and had a high total alkalinity .- h.a. sheldby CARD://





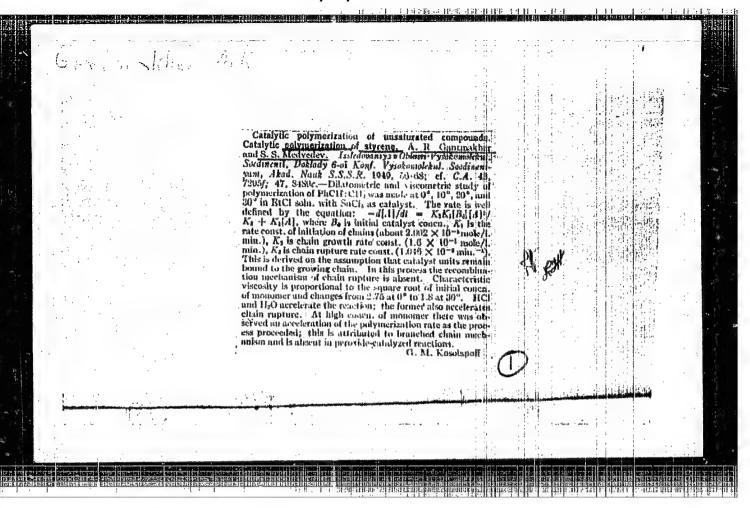


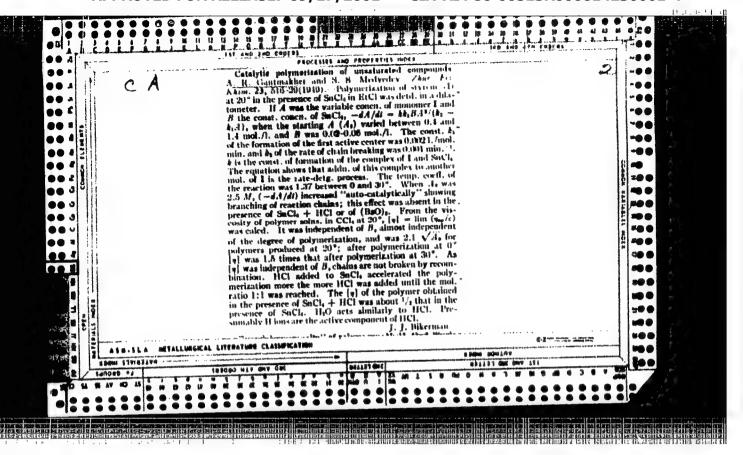
GANTEMEER, A. R.; Crime-Daw, S. S.

Fhysico-Chemical Institute imeni L. Ya. Earpov, Poscow (-1941-)

"The Change of the Raman Spectrum of Chloromene and Isoprene in the Folymerization Frocess." Zhur. Fiz. Khim. Vol 17, No 1, 1943.

BR-52059019

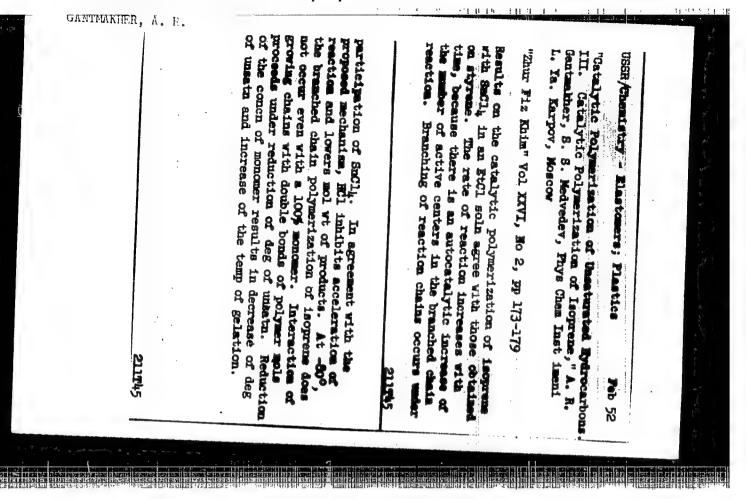




GANTHAKHER, A. R.	solvents, accelerating reaction in ethylchloride, dichloroethane, and o-nitrotoluene, lowering reaction rate in cyclohexane, and lowering mol wt when solvent has different dielec const than HCl) Found that reaction rate is proportional to square of conen of styrene in ethyl chloride with uniform dielec const. Proposes eq for dependence.	"Zhur Fiz Khim" Vol XXV, No 11, pp 1328-1334 Ionic character of processes of styrene polymeri- zation with SnCl _h was shown by investigation of processes in solvents with different dielec consts (i.e., higher dielec const increases reaction rate HCl admixts have different effects in different 196717	"Catalytic Polymerization of Unsaturated Compounds." II. Effect of the Dielectric Constant of the Medium on the Catalytic Polymerization of Styrene," A. R. Gantmakher, S. S. Medvedev, Phys. Chem Inst. imeni L. Is. Karpov, Moscow	The second second was a second
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"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000614230001-4



Polymeriza- 21 Oct 52 Catalytic Polymerization P. Gantmakher, S. S. USSR, T. E. Lipatova o 6, pp 1109-1111 Plesch, M. Polanyi, H. A. W. Meadows is found to claim that in the cata- utene in the liquid state and BF3 catalysts at 234725 CC13COOH, etc., is neces- ion may proceed. This is It is shown that by he dielec const of the ation of unsatd compds the presence of aprotonic Clh, and others without OH or other substances formation of protonic

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000614230001-4

GANTMAKHER A.R. USSR/ Catalytic polymerization

Card 1/2

Pub. - 21/52

Authors

Gantmakher, A. R., and Medverlev, S. S. Act. Memb. of Acad. of Sc. USSR

Titlo

Some peculiarities of the kinetics of combined catalytic polymerization

Periodical

Dok. AN SESR, 100/2, 275-278, Jan 11, 1955

Abstract

Investigation was made to determine the kinetics of combined and separate catalytic polymerization of isoprene-butadiene and styrenebutadiene systems. The polymerization was carried out in EtCl with SnCl, as catalyst at 0° by the dilatometric method. Results indicate that the butadiene polymerization does not take place at temperatures of from 0 to 20°; the polymerization with this less active catalyst requires much higher temperatures. Isoprene with SnCl₄ was observed to ploymerize at temperatures ranging from 0 to -80°.

Institution:

The L. Y. Karpov Scientific Research Phys-Chem. Institute

Submitted :

July 3, 1954

Periodical: Dok. AN SSSR, 100/2, 275-278, Jan 11, 1955

Card 2/2 Pub. 22 - 21/52

Abstract : Initial and maximum rate of polymerization were increasing after

adding a relatively large amount of butadiene to the isoprene. An entirely different effect was observed during the addition of butadiene

to styrene. Eight references: 2 English; 2 USA; 1 German and

3 USSR (1923-1951). Table; graph.

GANTMAKHER, A.R.

USSR/Chemistry - Catalytic polymerization

Card 1/1

Pub. 22 - 22/49

Authors

Lipatova, T. E.; Gantmakher, A. R.; and Medvedev, S. S. Memb. Corresp.

of Acad. of Sc., USSA

Ti.tle

Catalytic copolymerization of unsaturated compounds

Periodical

Dok. AN SSSR 100/5, 925-928, Feb 11, 1955

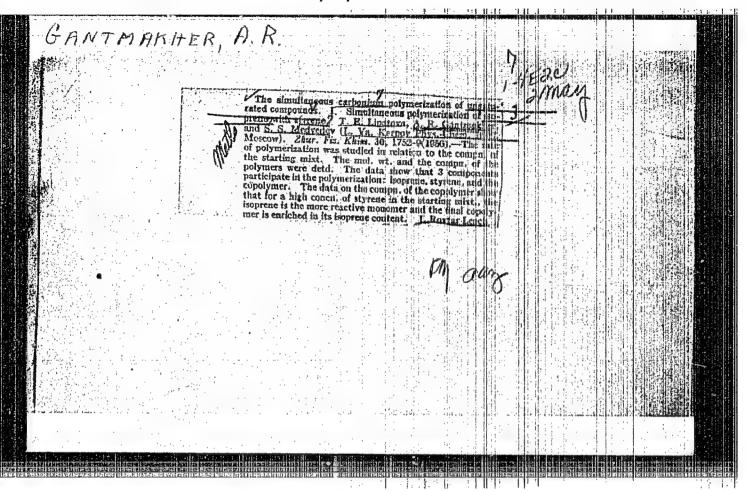
Abstract

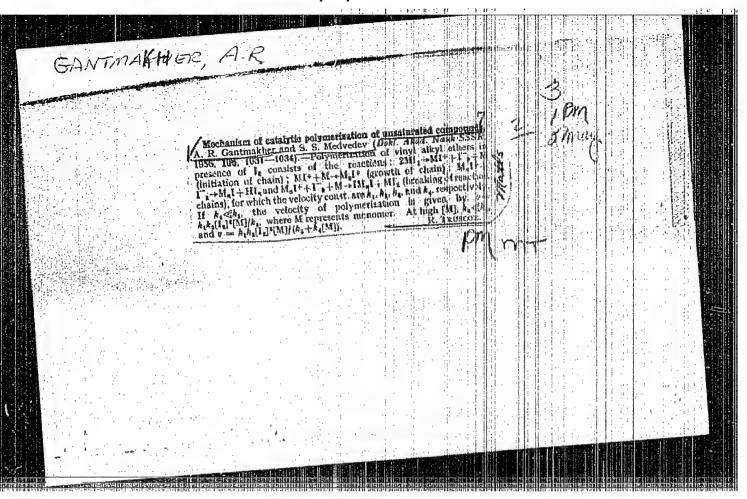
The kinetics of catalytic copolymerization of isoprene-styrene, isoprene-alpha-methylstyrene systems over SnCl_k catalysts was investigated to determine the copolymerization constants for these systems. The dependence of the copolymerization rate upon the composition of the basic mixture and the molecular weights of the homologous copolymers were determined. The ion mechanism of cetalytic polymerization in the presence of an SnCl4 catalyst is explained. Eight references: 6 USA and 2 USSR (1944-1955). Table; graphs.

Institution

Submitted

July 3, 1954





GANTMAKHER, A. R., and MEDVEDEV, B. J.

"Kinetics of copolymerization," a paper presented at the 9th Congress on the Chemistry and Physics of High Folymers, 20 Jan-2 Feb 57, Moscow, Karpov, Inst.

B-3,984,395

TRIPER CLIEBTOR OF THE HISTORY OF THE HISTORY OF THE HISTORY OF THE PROPERTY O sov/76-32-9-13/46 Lipatova, T. E., Gantmakher, A. R., AUTHORS: Medvedev, S. S. The Catalytic Copolymerization of Unsaturated Compounds (Sovmestnaya kataliticheskaya polimerizatsiya nenasyshchennykh soyedineniy) II. The Copolymerization of Isoprene and α -TITLE: Methyl Styrene (II. Sovmestnaya polimerizatsiya izoprena s α-metilstirolom) Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 9, PERIODICAL: pp 2029 - 2034 (USSR) These compounds were polymerized in an ethyl chloride solution at 0°C using tin (IV) chloride as a catalyst. The ABSTRACT: composition of the copolymers formed was determined from the volume decrease during the polymerization and by means of infra-red spectroscopy. The spectra are reproduced in figures 1,2, and 3. The molecular weights were determined by the osmotic method (Table 2). Diagrams show the course of the polymerization of α -methyl styrene alone (Fig 5) and of the copolymerization of isopreme and α -methyl styrene. The work shows that three components, isoprene, α -methyl styrene, and a product of copolymerization with inner Card 1/2

"APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614230001-4 REMITTION OF THE PROPERTY OF T

The Catalytic Copolymerization of Unsaturated Compounds. SOV/76-32-9-13/46 II. The Copolymerization of Isoprene and $\alpha\text{-Methyl}$ Styrene

double bonds take part in the polymerization reactions. Steric factors are important in the reaction between the tertiary carbonium ion and monomers. $\alpha\text{-methyl}$ styrene is considerably more reactive than isoprene. The initial reaction rate in the polymerization of the α -methyl styrene is decreased by the introduction of isoprene into the system. This is explained by the fact that various complex monomer-catalysts are formed. This formation reduces the concentration of the complex formed by the tin (IV) chloride with α -methyl styrene, which is the more active of the two monomers in initiating carbonium polymerization. There are 7 figures, 2 tables, and 2 references, 2 of which are Soviet.

ASSOCIATION: Fiziko-khimicheskiy institut im.L.Ya.Karpova, Moskva (Moscow

Physical-Chemical Institute imeni L.Ya.Karpov)

SUBMITTED:

April 4, 1957

Card 2/2

CIA-RDP86-00513R000614230001-4" **APPROVED FOR RELEASE: 09/17/2001**

[848-2]建筑经过产生,全主发生的任意,然后还是这种证明,完全都经验的证明,这个都是这些特别的证明,但如此时间的特别的现在,但是是这种的现在,他们的特别的 20-119-1-24/52 Lyudvig, Ye. B., Gantmakher, A. R., Medvedev, S. S., Corresponding Member, Academy of Sciences, AUTHORS: Some Peculiarities of the Carbonium-Polymerization of the USSR Styrene-d-Methylstyrene System (Nekotoryye osobennosti karboniyevoy polimerizatsii sistemy stirol-d-metilstirol) TITLE: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 1, pp. 90-93 PERIODICAL: The present paper is devoted to the investigation of a common cationic polymerization of the above-mentioned substances. In the earlier first investigation by the authors a rapid ABSTRACT: acceleration of the styrene-polymerization in the presence of small additions of &-methyl-styrene was observed. Now the dependence of the common polymerization on the composition of the initial mixture was investigated, and compositions of corresponding polymers together with the molecular weights determined. The obtained results were compared with the results of the separate polymerization. SnCl₄ in a solution of ethyl chloride at 0°C was used as catalyst. The curves (figure 1) obtained for various initial relations of the Card 1/4

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614230001-4"

Some Peculiarities of the Carbonium-Polymerization of the 20-119-1-24/52 Styrene-Q-Methylstyrene System

monomers show that in the concentration range from 0,7 to 1,7 Mol for of-methylstyrene (at a total concentration of the monomers of 2,5 Mol/liter) the polymerization under review takes place without an induction period with a gradually decreasing velocity. The composition of the co-polymers with those of the initial mixtures is given in table 1 which shows that the co-polymers are highly enriched with of-methylstyrene as more active component. The product of the co-polymerization-constants in this system is less than 1 (references 1,2). The steric effect manifests itself in a separate polymerization of Q-methylstyrene which is confirmed by the reduced thermal effect of its polymerization (ref. 3). The molecular weight of the polymers are given in table 2. The kinetic curves of the domain of the additions of small quantities of the more active component (figure 2) are the most interesting. The intensive effect of an increase in polymerization velocity in the course of time is characteristic here. It begins at a certain stage of the polymerization which is characteristic of every given relation of the polymers. The maximum velocity was observed in a relation of 10 Mol styrene: 1 Mol & -methylstyrene. With increasing

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614230001-4"

THE RESIDE

Some Peculiarities of the Carbonium-Polymerization of the 20-119-1-24/52 Styrene-X-Methylstyrene System

concentration of the catalyst the acceleration of the polymerization increases and its depth decreases (figure 2). The temperature drop highly reduces the relation of the maximum velocity to the initial velocity and lengthens the induction period. The observed maximum velocities ecxeed the sum of the velocities of the separate polymerization of the same monomers with the same initial concentrations. From these data follows that the effect of the acceleration is connected with the initiation acts. This is also indicated by a powerful influence of water and HCl upon the acceleration: as is to be seen from table 3 the acceleration effect is highly inhibited by these additions. The possible causes of a small acceleration at high HCl-concentrations are discussed. Further a partial effect of the reduction of the initial velocity takes place on the introduction of small additions of d-methylstyrene (figure 4). Such a phenomenon is well known in the radical polymerization. With the exhaustion of the quantity of d-methylstyrene the polymerization velocity shall somewhat increase and approach that of pure styrene. It was proved in this paper that the reactivity of the X--methylstyrene molecule in proportion to the carbonium ion

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Some Peculiarities of the Carbonium-Polymerization of the 20-119-1-24/52 Styrene-Q-Methylstyrene System

of styrene is considerably higher than that of styrene. Small quantities of the first-mentioned more active component intensively accelerate the styrene polymerization. This effect apparently is of general nature and is connected with a great difference of the activity of the monomers. There are 4 figures, 2 tables, and 3 references, 1 of which is Soviet.

SUBMITTED: October 9, 1957

Card 4/4

ZABOIOTSKAYA, Ye.V.; GARTMAKHER, A.R.; PEDVEDEV, S.S.

Polymerization of styrems with the simultaneous action of a catalyst and light. Vysokom. soed. 1 no.3:460-465 Nr '59.

(MIRA 12:10)

1.Fiziko-khimicheskiy institut im. L. Ya. Karpova.

(Polymerization) (Styrene)

SPIRIN, Yu.L.; GANTMAKHER, A.R.; MEDVELEY, S.S.

Mechanian of polymerisation in the presence of alkali notal organic compounds. Yyaokom.soed. 1 no.811258-1265 (MIRA 13:2)

Ag '59.

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova. (Polymerisation) (Alkali metal compounds)

LYUDVIG, Ye.B.; GANTMAKHER, A.R.; MEDVEDEV, S.S.

Characteristics of the mechanism of cationic polyperization.

Characteristics of the mechanism of cationic polyperization.

Part 1: Gopolymerization of the systems &-methylstyrene - styrene,
isobutylene - styrene and n-butyl vinyl ether - styrene. (WIRA 19:3)

1 no.9:1333-1341 S '59.

1.Fiziko-khimicheskiy institut im. L.Ts. Karpove.
(Styrene) (Ether) (Propene) (Polymerization)

LYUDVIG, Ye. V.; GANTMAKHER, A.R.; MEDVEDEV, S.S.

Characteristics of the mechanism of cationic polymerization. Part 2:
Mechanism of the fundamental reactions of cationic polymerization.
Mechanism of the fundamental reactions of cationic polymerization.
MIRA 13:3)
Vysokom. soed. 1 no.9:1342-1350 S '59. (MIRA 13:3)
Vysokom. soed. 1 no.9:1342-1350 S '59. (MIRA 13:3)

(Folymerization) (Styrene) (Propene)

GANTMAKHER, A.R.; SPIRIN, Yu.L.; MEDURDRY, S.S.

Polymerization and copolymerization of fluorinated styrenes.
Vysokom.soed. 1 no.10:1526-1530 0 '59. (MINA 13:3)

Vysokom.soed. 1 no.10:1526-1530 0 (MINA 13:3)

1. Fiziko-khimicheskiy institut im.L.Ta.Karpova.
(Styrene) (Folymerization)

304/20-127-1-26/65 Gantmakher, A. R., Medvedev, S. S., 5 (2) Academician, Lyudvig, Ye. B. AUTHORS: On the Initiation Mechanism of Cationic Polymerization in the Presence of Metal Halides (K voprosu o mekhanizme initsiirovaniya kationnoy polimerizatsii v prisutsvii galogenidov TITLE: metallov) Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 1, pp 100 - 103 PERIODICAL: There are two interpretations concerning the initiation mecha-(USSR) nism of carbonium polymerization and of the formation of the primary carbonium ion, respectively: (a) Cationic polymeriza-ABSTRACT: tion cannot proceed in the presence of metal halides without an addition of various co-catalysts. (b) This polymerization is possible under certain conditions without the additions mentioned. The problem of the nature of the co-catalytic additions developed considerably with the progress of investigations. In references 1-3 it was detected for isobutylene polymerization in liquid and in hexane solution that no polymerization takes place without proton-containing additions. Therefrom it results that always proton-containing acids of the type HB.PX act as Card 1/4

On the Initiation Mechanism of Cationic Polymerization SOY/20-127-1-26/65 in the Presence of Metal Halides

initiators of the aforesaid polymerization (HB - co-catalyst PX_n-metal halide). This held in the case of low temperatures and media with a low dielectric constant. The results of isoprene- and styrene polymerization in the presence of SnCl obtained by the authors showed, however, that the polymerization mentioned proceeds as well without additions at higher temperature and a higher dielectric constant (Ref 4). This fact concerning halogen alkyls and dichloro-ethane without additions (Refs 7,8,11) was confirmed by references 5,6. The authors of the two last-mentioned papers were, however, of the opinion that the solvent plays here the role of a co-catalyst (see Scheme). The scheme mentioned shows that the breaking of the chain in chloro-ethyl and dichloro-ethane with TiCl4 or SnCl4 as catalysts should not depend on the question as to whether the reaction is carried out in the presence of HCl or without this acid, since the carbonium ion is in either case in the field of one and the same compensating ion. This is in contrast to the authors' results according to which HCl additions reduce the molecular weight of polymers produced by the polymerization in halogen alkylic and other solvents (Ref 7). Only the

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On the Initiation Mechanism of Cationic Polymerization SOV/20-127-1-26/65 in the Presence of Metal Halides

molecules bound to the catalysts are effective. From these and other results (Refs 8-11) the authors drew the conclusion that the cationic polymerization may proceed under the direct effect of aprotic acids in halogen alkylic solvents without the participation of specific co-catalysts. This holds also for water (Refs 5,6). In reference 12 it is, however, not denied that both (a) and (b) polymerization methods are possible. The initiation reaction in the monomer - catalyst system proceeds apparently by way of the formation of a π -complex of the catalyst with the monomer. The initiation reaction is caused by an interaction between this complex and the monomer (Refs 8,13; analogy in reference 14). Thus, complex formation effects (Refs 11, 15) are inhibited by additions of H,0 and HCl (Ref 11) which form themselves stable complexes with SnCl4. a-methyl styrene forms complexes with SnCl better than the styrene used in references 1-3. It is rather probable that the co-catalysts form in non-polar solvents not only complexes with the catalyst, but also favor the formation of an ion couple by the solvation of the complex. The additions themselves may play this role as

Card 3/4

On the Initiation Mechanism of Cationic Polymerization SCV/20-127-1-26/65 in the Presence of Metal Halides

well as their complexes with the catalyst. Thus, polymerization without co-catalyst is in several systems one of the special cases of the complex nature of the initiation process. There are 16 references, 9 of which are Soviet.

SUBMITTED:

April 20, 1959

Card 4/4

5.3830 (A), 5.3831

66433

SOV/20-128-6-38/63

AUTHORS:

Spirin, Yu. L., Gantmakher, A. R.,

Medvedev, S. S., Academician

TITLE:

The Copolymerization of Parachlorostyrene With α -Methylstyrene

and Styrene Under the Influence of Alkaline Catalysts

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 6, pp 1232 - 1233

(USSR)

ABSTRACT:

An investigation is made of the reactivity of chlorine-containing monomers under the influence of lithium-organic and sodiumorganic catalysts in different media. The polymerization took place in a vacuum, to exclude the effects of air and humidity. Previous experiments with monomers containing a relatively mobile chlorine atom (chlorovinyl, chloroprene) showed that the chlorine atom quickly reacts with lithiumethyl and that no polymerization takes place even at low temperatures. The chlorine atom of parachlorostyrene is, however, less mobile, and thus it is possible to carry out the polymerization. Table 1 gives the results of the experiments. Lithiumethyl, sodium triphenylmethyl, α -sodium naphthalene and γ -radiation were used as catalysts; the solvents were benzene, ether, triethylamine, and tetrahydrofuran. The composition of the copolymers strongly depended on the kind

Card 1/2

66433

The Copolymerization of Parachlorostyrene With α -Methyl- SOV/20-128-6-38/63 styrene and Styrene Under the Influence of Alkaline Catalysts

of catalyst and medium. In the case of hydrocarbons the radical polymerization is predominant in the polymerization with lithiumethyl. The same radical polymerization also prevails under the effect of γ -radiation. In the case of triethylamine the polymerization according to the anion mechanism is most frquent, while when lithiumethyl is used in ether radical mechanism and anion mechanism are found side by side. The constants of anionic copolymerization calculated for styrene ($\alpha = 0.1 \pm 0.1$) and parachlorostyrene ($\beta = 6.5 \pm 0.1$) show that the introduction of the chlorine atom into styrene increases the activity of the monomer for anionic polymerization. There are 1 table and 2 references, 1 of which is Soviet.

ASSOCIATION:

Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya.

Karpova (Scientific Research Institute of Physical Chemistry

imeni L. Ya. Karpov)

SUBMITTED:

July 6, 1959

Card 2/2

*** Tesely_K; (Casechoaldrakia). On the Nechanism of Ionic Polymerisation 252 **********************************	Bahisth, I., and A. Seichek (Sechoeloratia). The East of Reartion is a Means of Studying the Medhadism of the Emission Polymeriantion of Styrens and Chloroprims and the Chromatic of Styrens and Chloroprims. Reight Th.L., D.I. Polymer, A.N. Companies, S.S. Middler (USSR). Polymeriantics in the Freezes of Originate Compones of Albali Mitals Marginet and Mechanism of the Folymerianticm of Nethyl Methacrylate by Budgishian and Mechanism of the Folymeriantion of Nethyl Methacrylate by 208 Didgle R. M. Fishinth, M. Methacis Folymeriantion of Casashtyltyclotetruslumns. The Formacion of Stable Complexes at Active Centers The Formacion of Stable Complexes at Active Centers Rachalak, L., T. Mejsidh end L.Pán. (Casabosteratia). Meatics of the Polymeriantion of Formalidatyde	Ericks, 2, and <u>N.F. Extention</u> (USSE). Study of the Mechanism of Bankion Polymerization Archaela, and M. F. Carlotte (Catcheslovakie). The Polymerization Esta for a Single Particle During Emulsion Polymerization. Symbols, P., and <u>Ye. Zalborni</u> (Catcheslovakie). Emulsion Polymerization of Chimumenta Chimumenta The Comparison of Polymerical (Polymerical During Polymerical Catcheslovakie). Change of Potential During Polymerical Catcheslovakies. E., and <u>Q. Vérigyerical</u> (Polymerical Catcheslovakies).	Enhantic, A.L., and O.A. Theoryer (USER). On the Relative Activity of Remarkative, 3, byteadiess in Polymerisation and Co-polymerisation Sections With Other Diests Compounds Pricey L.L., and S.Yh. Thental' (USER). Interchain Enchange Reactions in the Process of Saignal Polymerisation In the Process of Saignal Polymerisation [2] [Astr. D., E. Sirral, J. L. Trull, and J. J. II (Empay). Ninetic Study of Ready Polymerisation of Tityl Moments in the Presence of Sirral Polymerisation Sate at a High Degree of Conversion [3] [4] [5] [6] [6] [6] [6] [7] [7] [6] [6	COPERAGE: This is Section II of a multivalums work containing papers on macro-malecular chemistry; The propers in this volume treat satisfy the kinetics of various polymerization remarks intitled by different satisfy to Habitation. The properties of the properties of the properties of the properties of the properties in the properties of the properties	5
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SHOUND SAMERAR OLD SAM					